

DERWENT-ACC-NO: 1996-433639  
DERWENT-WEEK: 199954  
COPYRIGHT 1999 DERWENT INFORMATION LTD

TITLE: Lightweight sound absorbing component - comprises air layer  
between  
expanded fibre-reinforced thermoplastic resin and resin moulded body

INVENTOR: FUJIMAKI, M; FUNAKOSHI, S ; MASUI, S ; MATSUMOTO, T  
; NAGAYAMA, K  
; SUNADA, M ; YOSHITAKE, H

PATENT-ASSIGNEE: K-PLASHEET CORP[KPLAN], KAWASAKI STEEL  
CORP[KAWI], SUMITOMO  
CHEM CO LTD[SUMO], KEPURASHITO KKCO LTD[KEPUN]

PRIORITY-DATA: 1995JP-0156077 (June 22, 1995) , 1995JP-0052444  
(March 13, 1995)  
, 1995JP-0052445 (March 13, 1995)

PATENT-FAMILY:

| PUB-NO        | PUB-DATE           | LANGUAGE | PAGES           |
|---------------|--------------------|----------|-----------------|
| MAIN-IPC      |                    |          |                 |
| US 5981046 A  | November 9, 1999   | N/A      | 000 B32B        |
| 005/18        |                    |          |                 |
| WO 9628297 A1 | September 19, 1996 | J        | 044 B32B        |
| 003/26        |                    |          |                 |
| JP 08244125 A | September 24, 1996 | N/A      | 005 B29D        |
| 009/00        |                    |          |                 |
| JP 08244150 A | September 24, 1996 | N/A      | 005 B32B        |
| 003/26        |                    |          |                 |
| JP 09001714 A | January 7, 1997    | N/A      | 006 B32B        |
| 005/28        |                    |          |                 |
| EP 765737 A1  | April 2, 1997      | E        | 027 B32B 003/26 |
| KR 97702786 A | June 10, 1997      | N/A      | 000 B32B        |
| 003/26        |                    |          |                 |

DESIGNATED-STATES: KR US AT BE CH DE DK ES FI FR GB GR IE IT  
LU MC NL PT SE DE F  
I FR GB IT SE

CITED-DOCUMENTS: JP 1165742; JP 56151131 ; JP 6156161 ; JP  
6270922

APPLICATION-DATA:

| PUB-NO       | APPL-DESCRIPTOR | APPL-NO        |                      |
|--------------|-----------------|----------------|----------------------|
| APPL-DATE    |                 |                |                      |
| US 5981046A  | N/A             | 1996WO-JP00618 | March 13,<br>1996    |
| US 5981046A  | N/A             | 1996US-0737441 | November 12,<br>1996 |
| US 5981046A  | Based on        | WO 9628297     | N/A                  |
| WO 9628297A1 | N/A             | 1996WO-JP00618 | March 13,<br>1996    |
| JP 08244125A | N/A             | 1995JP-0052445 | March 13, 1995       |
| JP 08244150A | N/A             | 1995JP-0052444 | March 13, 1995       |
| JP 09001714A | N/A             | 1995JP-0156077 | June 22, 1995        |
| EP 765737A1  | N/A             | 1996EP-0905996 | March 13, 1996       |
| EP 765737A1  | N/A             | 1996WO-JP00618 | March 13,<br>1996    |
| EP 765737A1  | Based on        | WO 9628297     | N/A                  |
| KR 97702786A | N/A             | 1996WO-JP00618 | March 13,<br>1996    |
| KR 97702786A | N/A             | 1996KR-0706396 | November 12,<br>1996 |
| KR 97702786A | Based on        | WO 9628297     | N/A                  |

INT-CL\_(IPC): B29D009/00; B29D031/00 ; B29K101:12 ; B29K105:04 ;  
B29K105:12 ; B32B003/02 ; B32B003/26 ; B32B005/02 ; B32B005/18 ;  
B32B005/28 ; B32B007/02 ; B32B017/04 ; B32B027/00 ; B32B027/12 ;  
B60R013/08 ; E04B001/82 ; E04B001/90 ; F01N001/24 ; F02B077/13 ;  
G10K011/16 ; G10K011/162

ABSTRACTED-PUB-NO: US 5981046A

BASIC-ABSTRACT: A sound absorbing component includes an expanded  
body of a  
fibre-reinforced thermoplastic resin having a voids of at least 50 vol.% and

a  
resin moulded body, wherein an air layer is disposed between the  
expanded body  
and the resin moulded body.

ADVANTAGE - Though light in weight and low in thickness, this sound  
absorbing  
component effectively absorbs sounds in a frequency range of 500 - 3000  
Hz of  
noise outside a car.

ABSTRACTED-PUB-NO: WO 9628297A  
EQUIVALENT-ABSTRACTS: A sound absorbing component includes an  
expanded body of  
a fibre-reinforced thermoplastic resin having a voids of at least 50 vol.%  
and  
a resin moulded body, wherein an air layer is disposed between the  
expanded  
body and the resin moulded body.

ADVANTAGE - Though light in weight and low in thickness, this sound  
absorbing  
component effectively absorbs sounds in a frequency range of 500 - 3000  
Hz of  
noise outside a car.

CHOSEN-DRAWING: Dwg.1/29

TITLE-TERMS:  
LIGHT SOUND ABSORB COMPONENT COMPRISE AIR LAYER  
EXPAND FIBRE REINFORCED  
THERMOPLASTIC RESIN RESIN MOULD BODY

DERWENT-CLASS: A95 P73 P86 Q17 Q51

CPI-CODES: A12-R06; A12-S04B; A12-S08D; A12-S08E;

ENHANCED-POLYMER-INDEXING:  
Polymer Index [1.1]  
018 ; H0317 ; S9999 S1309\*R

Polymer Index [1.2]

018 ; ND01 ; Q9999 Q9234 Q9212 ; Q9999 Q9289 Q9212 ; B9999  
B4193  
B4091 B3838 B3747 ; B9999 B4842 B4831 B4740 ; B9999 B5243\*R  
B4740  
; B9999 B3985 B3974 B3963 B3930 B3838 B3747 ; Q9999 Q6622  
Q6611  
; K9892 ; K9574 K9483 ; K9712 K9676 ; K9687 K9676 ; K9416

Polymer Index [1.3]

018 ; S9999 S1070\*R ; A999 A419

Polymer Index [2.1]

018 ; P0000 ; S9999 S1434

Polymer Index [2.2]

018 ; ND01 ; Q9999 Q9234 Q9212 ; Q9999 Q9289 Q9212 ; B9999  
B4193  
B4091 B3838 B3747 ; B9999 B4842 B4831 B4740 ; B9999 B5243\*R  
B4740  
; B9999 B3985 B3974 B3963 B3930 B3838 B3747 ; Q9999 Q6622  
Q6611  
; K9892 ; K9574 K9483 ; K9712 K9676 ; K9687 K9676 ; K9416

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1996-136086

Non-CPI Secondary Accession Numbers: N1996-365388